

**REMARKS**

This responds to the Office Action mailed 26 July 2004.

Claims 1, 3-10, 12-19, 23-27 and 30-51 are pending. Of these, claims 34-49 are withdrawn from consideration. Claims 1, 7-10, 12-19, 23-24, 26, 27, 30-33, 50 and 51 are rejected. Claims 3-6 and 25 are objected to. The drawings filed on 22 September 2003 were objected to by the Examiner.

Regarding page 2, paragraph 1 of the Office Action: It is noted that the declaration submitted under 37 C.F.R. 1.132 on 28 May 2004 has been deemed to be sufficient to overcome the rejection in the prior Office Action of claims 1, 7, 8, 12-19, 23, 24, 26, 27, 30-33, 50 and 51 since the Lanham reference relied upon in the 35 U.S.C. 103 rejection has a common assignee as the assignee of the present application.

On page 2 of the Office Action, the Examiner set forth an objection to the drawings alleging that they include reference characters not mentioned in the description and that several of the reference numbers in the 100 series are not illustrated. This objection was discussed with Examiner Kenny in a telephone conversation on 01 September 2004. During this conversation, the undersigned said he could not understand the objection and asked Examiner Kenny for additional information regarding discrepancies between the use of part numbers on the drawings and in the description. Examiner Kenny said he would review this objection and provide further information regarding the alleged deficiencies. In a return phone call, Examiner Kenny said that he could not find any drawing deficiencies and that the applicants need not take any further action regarding this issue until specific deficiencies are found by Examiner Kenny and communicated to the applicants.

All claims pending in the application were rejected under 35 U.S.C. 103(a) as being unpatentable over Sipin (U.S. Patent No. 4,559,833) in view of Cucci (U.S. Patent No. 5,672,832). Some of the pending claims were rejected over the Sipin/Cucci combination taken alone; other claims were rejected using the Sipin/Cucci combination together with additional patents as subsequently discussed.

**INTRODUCTORY COMMENTS**

The following threshold comments are submitted to facilitate an understanding of the present invention and its relationship to the known prior art.

The present invention discloses a Coriolis flow meter having a process connection and a flow tube means formed entirely of PFA or PTFE material. The flow tube means is connected on its ends to process connections formed of PFA or PTFE. In so far as is known to the applicants, this invention is unique and a breakthrough in the art. The applicants believe that they are the first to have invented and disclosed a Coriolis flow meter having a process connection and a flow tube means formed entirely of PFA or PTFE. The applicants have not seen any documentation, including patents that disclose a Coriolis flow meter having a flow tube formed entirely of PFA or PTFE. The applicants' belief is supported by the fact that during prosecution by the assignee of related patent applications disclosing PFA or PTFE flow tubes, the responsible patent authorities have not cited art disclosing a Coriolis flow meter having a flow tube formed entirely of PFA or PTFE.

The prosecution of these patent applications has encountered series of "obviousness" rejections in which two or more references were combined with assertions that it would be "obvious" to combine the references to make a Coriolis flow meter having a PFA or PTFE flow tube.

These obviousness rejections take various forms. The most common is a rejection based upon an assertion that it would be obvious to modify a known Coriolis flow meter having metal flow tubes by substituting PFA or PTFE for the metal. These rejections contained no supporting explanation as to how such a substitution could be accomplished. Another variant that has been encountered is a combination of references wherein one of the references contained a gratuitous statement that its metal flow tube could be replaced by PFA or PTFE. The Examiner seized upon this gratuitous statement to argue that it would be obvious to replace a metal flow tube with the gratuitously mentioned PFA or PTFE.

The theme common to these obvious rejections is that they are unsupported by evidence of motivation to combine and amount to nothing more than hindsight engineering by the Examiner. In all of these rejections the Examiner used knowledge gained from a reading of the applicants' disclosure and applied this knowledge against the applicants. This hindsight argument is made without regard as to whether the created combination could be constructed and would be operable if such construction were possible. This hindsight argument was also made with no consideration of whether the cited combination was supported by evidence of motivation to combine.

It goes without saying that if the Examiners could have found a single anticipatory reference, they would have cited it. It also goes without saying that, they were unable to find a single anticipatory reference because no such reference exists. It further goes without saying that the reason that no such reference exists is that the applicants believe that they are the first to file a patent application disclosing a Coriolis flow meter having process connection and a PFA or PTFE flow tube

The Examiners who created these hindsight based obviousness rejections may have done been forced to rely on hindsight for several possible reasons. The first possible reason is that no references could be found containing evidence of motivation to combine to create a Coriolis flow meter having process connection and a PFA or PTFE flow tube. The second possibility is that the Examiners may have no working knowledge of PFA or PTFE and its characteristics. They may not know that PFA or PTFE tubes are slippery, flaccid, and difficult to work with. They may erroneously assume that it can be substituted for a flow tube of an existing Coriolis flow meter with no thought being given to the unique characteristics of PFA or PTFE and the difficulty of using it as a replacement for metal flow tube in a Coriolis flow meter. The Examiners may believe that a Coriolis flow meter could be made of steel or PFA or PTFE with little thought being given to problems resulting from the dissimilarities between these elements. The Examiners may not be aware of the difficulties involved in replacing a metal flow tube with a PFA or PTFE flow tube. They may not know that it would require design deliberations orders of magnitudes greater than the deliberations and problems encountered when using stainless steel as a substitute for steel, or vice versa.

The obviousness rejections received by the applicants to date are legally deficient for a number of reasons. First of all, they merely assert, without supporting evidence, that it would be obvious to use PFA or PTFE as a substitute for metal flow tubes. These rejections contain no evidence that the Examiner considered whether his proposed combination would result in a structure that would be operable, and useful to generate accurate flow information. There is no evidence that the Examiners were familiar with PFA or PTFE material, its many dissimilarities from other materials, and the difficulties involved in using PFA or PTFE in a flow tube of a Coriolis flow meter.

**Rejection of Claims 1, 16-18, 23, 26, 27, 30-33 and 50-51.**

Claims 1, 16 -18, 23, 26, 27,30 -33 and 50 -51 were rejected under 35 U.S.C.103 (a) as being unpatentable over Sipin (U.S. 4559833) in view of Cucci (U.S. 5672832). The rejection of claims 1, 16 -18, 23, 26, 27, 30 -33 and 50 -51 is respectfully traversed.

Rejected claims 1, 50 and 51 read as follows:

1. A method of manufacturing a Coriolis flow meter adapted to extend a received process material flow having an ultra high level of purity free from contamination due to ion transfer from said Coriolis flow meter to said process material; said method comprising the steps of:

coupling a flow tube means to a base, wherein said flow tube means is formed entirely from PTFE or PFA;  
affixing a driver to said flow tube means;  
coupling a pick-off means to said flow tube means; and  
affixing inlet and outlet ends of said flow tube means to at least one process connection.

50. The method of claim 1 characterized in that said step of affixing inlet and outlet ends of said flow tube means to the at least one process connection further comprises the step of forming the at least one process connection from PTFE or PFA to form an ultra pure flow path for a process material flow through said flow meter.

51. The method of claim 1 characterized in that said step of affixing inlet and outlet ends of said flow tube means to the at least one process connection further comprises the step of forming the at least one process connection entirely from PTFE or PFA to form an ultra pure flow path for a process material flow through said flow meter.

Independent claim 1, in essence, recites the following elements:

A Coriolis flow meter, a flow tube means formed of PTFE or PFA, a base, a driver affixed to said flow to means, a pickoff means coupled to said flow tube means, at least one process connection affixed to inlet and outlet ends of said flow tube means.

Claims 50 and 51 are dependent on independent claim 1 and, in essence, require that the process connection of claim 1 be formed of PFA or PTFE.

Regarding claims 1, 50 and 51 the Examiner noted that Sipin does not explicitly disclose a flow tube means that is made entirely of PTFE or PFA. The Examiner characterized Cucci and stated that it would have been obvious to one of ordinary skill in the art at the time the invention was made to fabricate the flow tube and process connection of Sipin using PFA or PTFE as taught by Cucci in order to

afford the advantages of pure homogenous flow.

The cited references do not disclose or suggest or make obvious the elements recited in independent claim 1 and dependent claims 50 and 51. The 35 U.S.C. §103(a) rejection of claims 1, 50, and 51 is traversed as being legally deficient for failing to meet the requirements of 35 U.S.C. §103(a) obviousness rejections. The Examiner did not provide any information as to how the combination of Gucci and Sipin could be achieved. This lack of information deprives the applicants of due process since they are not provided with sufficient information to enable them to understand the rejection. This precludes the applicants from preparing a response that advances the prosecution of the application. **A supplemental office action is requested that complies with all applicable laws, rules and regulations pertaining to 35 U.S.C. §103(a) rejections.**

#### **Obviousness Rejection Requirements**

The requirements for 35 U.S.C. §103(a) obviousness rejections are set forth in MPEP Sections 2142 and 2143 as well as in the decisions of the Court of Appeals for the Federal Circuit. It is beyond the scope of this amendment to present a treatise on 35 U.S.C. §103(a) obviousness rejections. It is sufficient to set forth a few summary observations regarding the requirements that a valid 35 U.S.C. §103(a) obviousness rejection must meet.

Hindsight is not permitted. The last few lines of MPEP §2142 on pages 2100-123 and 124 state:

However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of facts gleaned from the prior art.

The Examiner's 35 U.S.C. §103(a) rejection of claims 1, 16 –18, 23, 26, 27, 30 –33 and 50 –51 is a classic case of impermissible 20/20 hindsight engineering using facts gleaned from a reading of the applicants' own disclosure rather than from facts derivable from a reading of the prior art.

The last portion of MPEP §2142 and the first portion of §2143.01 require that:

The Examiner's cited art must provide motivation to combine the references as well as a discussion of the nature of the problem to be solved, the teachings of the prior art and the knowledge of persons of ordinary skill in the art.

*MPEP §2143.01 on page 2100-125 states that:*



*The combination of references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a prima facie case is improper.*

The Examiner's rejection of claims 1, 50 –51 is devoid of evidence proving motivation to combine. The format of the Examiner's 35 U.S.C. §103(a) rejection is to characterize the disclosure of the cited references and then to conclude with an unsupported assertion that it would be obvious to combine the two references to anticipate the rejected claims.

The left column of page 2100-126 of the MPEP is entitled:

Fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness.

MPEP §2143.01, page 2100-124 states that:

[R]eferences that are relied upon and that teach all aspects of the claimed invention in individually-known art are not sufficient to establish a primary *prima facie* case of obviousness without some objective reason to combine the teaching of the references.

The Examiner's 35 U.S.C. §103(a) rejection ignores this requirement.

MPEP §706.02(j) is further instructive regarding 35 U.S.C. §103(a) rejections. Page 700-31 of column 1 of MPEP §706.02(j), requires the Examiner to state the proposed modification of the references necessary to arrive at the claimed subject matter and to give an explanation of why one of ordinary skill in the art at the time the invention was made would have been motivated to propose the modification. To provide such evidence, there must be some suggestion or motivation, either in the references themselves or in the general knowledge available to one skilled in the art, to modify the reference or to combine the teachings. The Examiner failed to meet this requirement.

Page 700-31 of column 1 of MPEP §706.02(j) also states that:

...the burden is on the Examiner to provide the suggestion of desirability of doing what the Examiner has done. It further states that the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in the light of the teaching of the references.

The Examiner's rejection does not meet these requirements.

It appears that the Examiner treats the process of generating a 35 U.S.C. §103(a) obviousness rejection somewhat comparable to a trip through a hardware

store where the various claim elements are components in bins of the hardware store. The Examiner collects the claim elements from their respective bins, places them in a shopping cart and then asserts that it would be obvious to combine the collected parts to make obvious the claimed invention.

Following are statements representative of the applicable case law relevant to the issue of combining references for a 35 U.S.C. §103(a) obviousness rejection:

1. When a patent describes a new mechanical device that can be viewed as a new combination of mechanical components, the legal conclusion of obviousness requires that there be some suggestion, motivation, or teaching in the prior art whereby the person of ordinary skill would have selected the components that the inventor selected and use them to make the new device. *C.R. Bared, Inc. v. M3 Systems, Inc.*, 48 USPQ2d 225 (Fed. Cir. 1998).
2. The mere fact that it is possible to find two isolated disclosures that might be combined in such a way so as to produce a new result does not necessarily render the production obvious unless the art also contains some suggestion of the desirability of the proposed combination. *In re, Grabiak*, 226 USPQ 870 (Fed. Cir. 1985).
3. The absence of a suggestion in the prior art to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Health Care Corp.*, 42 USPQ2d 1378 (Fed. Cir. 1997).
4. It is improper to use the inventor's patent as an instruction book on how to reconstruct the prior art. *Panduit Corp. v. Dennison Mfg. Co.*, 1 USPQ2d 1953 (Fed. Cir. 1987).
5. The expected success of a proposed combination must be found in the prior art and not in the applicants' own disclosure. *In re, O'Farrall*, 7 USPQ2d 1673 (Fed. Cir. 1988).
6. The problem confronted by the inventor must be considered in determining whether it would have been obvious to combine references in order to solve the problem. *Northern Tel Com, Inc. v. Data Point Corporation*, 15 USPQ2d 1321 (Fed. Cir. 1990).
7. Rejecting patents solely by finding prior art corollaries for the claimed elements would permit an Examiner to use the claimed invention itself as a blueprint for piecing together the elements in the prior art. Such an approach is illogical and inappropriate in determining patentability. To prevent the use of hindsight based upon the invention to defeat patentability, the law requires that the Examiner show a motivation to combine in order to create a case of obviousness. *In re, Rouffet*, 47 USPQ2d 1453 (Fed. Cir. 1998).

8. The genius of invention is often a combination of known elements that in hindsight seems preordained. To prevent hindsight invalidation of claims, the law requires some teaching, suggestion or reason to combine the cited references. The test to combine references must be applied rigorously. If the references taken in combination would produce a seemingly inoperative device, such references teach away from the combination and cannot serve as predicates for a *prima facie* case of obviousness. *McGinley v. Franklin Sports, Inc.*, 60 USPQ2d 1001 (Fed. Cir. 2001).

### **ANALYSIS OF 35 U.S.C. §103(a) OBVIOUSNESS REJECTION OF CLAIMS 1, 50 AND 51**

It is instructive to analyze the Examiner's obviousness rejection of claims 1, 50 and 51 to determine to what extent, if any, it complies with the above discussed requirements. On page 3 of the Office Action, the Examiner characterizes Sipin and concludes that Sipin does not disclose a flow tube formed of PFA or PTFE, but that the Sipin flow meter is routinely employed in the food and chemical process industries. The Examiner then characterizes Cucci and asserts that the Cucci structure is formed of PTFE, which is chemically inert and non-contaminating. The Examiner's characterization of Cucci is flawed since he asserts that Cucci discloses a "flow tube means 26". The Cucci structure comprises a block of PTFE. Element 26 of Cucci is not a flow tube; it is a bore formed within the Cucci housing 12.

The Cucci structure is not a Coriolis vibrating type flow meter as required by the claimed structure of the present invention. The Cucci structure is a solid block having a bore 26 and a pressure transducer 42 and 44 on opposing sides of a constriction 35 formed within bore 26. These elements 26, 42, and 44 form a delta P. transducer which determines material flow within bore 26 by measuring the pressure differences between elements 42 and 44. The Examiner's assertion that Cucci discloses a flow tube 26 is in error and destroys any possible probative value of his 35 U.S.C. §103(a) obviousness rejection.

To form a legally sustainable 35 U.S.C. §103(a) obviousness rejection the Examiner must set forth a believable characterization of how the disclosures of the two references could be combined to form an operable structure that makes obvious the applicants' claimed invention. In so doing the Examiner must not employ hindsight. Having found a proposed combination, the Examiner must provide evidence proving that one skilled in the art to which the invention pertains would be



motivated to combine the references. A motivation to combine cannot amount to a mathematical summation of parts where the Examiner reads the applicants' disclosure to determine the parts necessary to form the claimed combination and then finds two or more isolated patents whose elements, taken together, are the mathematical equivalent of the claimed invention. Then, having found two such references, he asserts that it would be obvious for one skilled in the art to combine them to make obvious the applicants' claimed invention.

A motivation to combine must amount to more than a mathematical combination of two or more flow meter patents. Evidence supporting a motivation to combine must be found in the references themselves or must be based upon well known physical characterizations or relationship. An Examiner's assertion of obviousness unsupported by evidence of motivation to combine does not prove obviousness.

The Examiner's 35 U.S.C. §103(a) obviousness rejection meets none of the above discussed requirements. The Examiner's proposed combination of Sipin / Cucci is illogical insofar as it can be understood. Sipin discloses a flow meter that has an "S" shaped flow tube formed of conventional material such as metal. Cucci discloses a structure formed of PTFE that does not have a flow tube and instead, has a bore 26 configured to operate as a delta P pressure meter. The Examiner proposes to combine these two references; yet he fails to provide any information regarding how they could be combined. See MPEP §706.02(j), *supra*.

Many alternatives are possible. Does he propose that the Cucci block of PTFE element 12, be substituted in its entirety for the flow tubes of Sipin? If so how? If this is what the Examiner envisions, one might ask why not just cite Cucci and forget about Sipin? This alternative would not meet the requirements of claim 1 which, in essence, recites a Coriolis flow meter that is affixed to a driver having a flow tube formed of PFA or PTFE. Cucci fails to disclose these elements.

A second alternative may be that the Examiner proposes that the Cucci structure be disassembled and that some of its parts be incorporated into Sipin. If this is what the Examiner envisions, he is requested that to provide information regarding how block 12 of Cucci can be incorporated into the Sipin "s" shaped flow tube. The Examiner is not required to supply detailed blueprints; however, he is required to provide sufficient information of his proposed combination so that the

applicants can provide a meaningful response. The mere assertion that Cucci could be combined with Sipin is meaningless and of no use to the applicants.

A third possible alternative may be that the Examiner envisions that since Cucci discloses the use of PTFE to define a flow channel, it would be obvious, somehow, to replace the Sipin metal flow tubes with PTFE flow tubes. The problem with this alternative is that the Examiner has presented no evidence of a motivation to combine to achieve his proposed combination. Without such evidence, the third possible alternative amounts to nothing more than Examiner hindsight engineering. Just because two references could be combined does not support an assertion that it would be obvious to combine them. References may be combined only when supported by evidence suggesting a motivation to combine. See MPEP page 2100-126 and MPEP §2143.01, page 2100-124, *supra*.

#### **SUBSTITUTION OF PARTS**

One might assert that it is obvious to modify an element of a structure by using a different material if the functionality of the modified structure is not changed. But, it cannot be asserted to be obvious if the modification involves a change in functionality. Such would be the case if the flow tube of a Coriolis flow meter is modified by a material substitution. The flow tube of a Coriolis flow meter is a critical element and a change in the flow tube material from metal to PFA or PTFE would result in a drastic change in the functionality of the modified Coriolis flow meter.

While the modification of Sipin to incorporate a PFA or PTFE flow tube might seem simple and straightforward to a philosopher, the effort required to achieve this combination was far more involved than might appear from a superficial analysis to someone assigned the task of creating an operable Coriolis flow meter having a process connection and a flow tube formed of PFA or PTFE.

The Examiner's 35 U.S.C. §103(a) rejection based on the Sipin/Cucci combination is respectfully traversed. The Examiner's proposed combination is not obvious and would not achieve a structure that is that is operable or useful to generate reliable data. The Examiner's 35 U.S.C. §103(a) rejection based on the Sipin/Cucci combination is further traversed since it is devoid of evidence supporting a motivation to combine Sipin and Cucci.

**Rejection of Claims 16-18, 23, 26, 27, 30, and 31**

Claims 16 – 18, 23, 26, 27, 30, 31 were rejected under 35 U.S.C. 103(a) as being obvious in view of the Sipin/Cucci combination. This rejection is traversed.

In support of his rejection, the Examiner sets forth comments regarding these claims, compares these claims to the Sipin disclosure, states that the step of laser welding is merely a design choice, and states that employing optical sensors inherently requires an opaque medium.

The rejection of claims 16-18, 23, 26, 27, 30, and 31 of this group is legally deficient for the same reasons discussed above with respect to claims 1, 50 and 51. It is respectfully submitted that claims 16-18, 23, 26, 27, 30, 31 are not obvious in view of the Sipin/Cucci combination. The cited references contain no evidence supporting a motivation to combine.

Claim 16 is directed to the step of coupling at least one process connection to said base. Claims 17 and 18 are directed to the further details of: coupling a process connection to said base, securing said process connection into a hole in said base, and securing a fixed element of said process connection into said hole and adhering said fixed element of said process connection into said hole. Claim 23 recites the step of adhering a fixed element of the process connection to said base. Claim 26 recites the step of affixing one end of the flow tube means to the process connection and inserting said end of said flow tube means through said process connection until the end of the flow tube means is flush with said one process connection. Claim 26 further recites sealing the end of the flow tube means to one face of the process connection. Method claim 27 is directed to the step of adhering said flow tube means to a face of said process connection.

It appears that the Examiner believes that Figure 9 of Sipin may be relevant. But figure 9 of Sipin does not disclose the affixing of a process connection to base 74. The Sipin flow tube end portions 76 and 78 extend through openings in base 74. The process connections of Sipin that might possibly be comparable to the applicant's process connections are the cylindrical elements, which are undesignated and affixed to the left end portion 76 of the Sipin, flow tube and to the right end portion 78 of the Sipin flow tube. Since the rejected dependent claims of this group recite details regarding the affixing of the applicants' process connection to the base, figure 9 of Sipin is irrelevant since the Sipin process connections are not connected to the Sipin base 74. The Examiner's rejections are legally in error.

Claim 30 is directed the step of laser welding the flow tube means to a face of said process connection. Claim 31 is directed to the step of making portions of the flow tube means opaque to facilitate the use of optical pickoffs. The Examiner's proposed combination of references discloses no comparable structure or method. The Examiner does not accurately characterize Sipin. The Examiner's remarks on page 4 of the Office Action refer to figure 9 and column 6, lines 1 through 15 of Sipin as being relevant to the applicants' recitation of laser welding in claim 30. This Sipin material contains nothing regarding laser welding.

Regarding the rejection of claim 31 which recites the step of making portions of the flow tube means opaque to facilitate the use of optical pickoffs, the Examiner cited column 5, lines 5 through 15 of Sipin. This material has been studied and found to contain nothing regarding making a portion of the Sipin flow tube means opaque. This portion of Sipin refers to the use of a tiny hole in his conduit 12 to interrupt the light beam from optical elements. It would appear that the Examiner has again mischaracterized Sipin.

#### **Rejection of Dependent Claims 32 and 33**

Dependent claim 32 recites the step of affixing a temperature-sensing device to a Coriolis flow meter. Dependent claim 33 states, in essence, that the temperature-sensing device of claim 32 comprises a resistance temperature-measuring device. Both of these claims were rejected under 35 U.S.C. §103(a) in view of Sipin/ Cucci with the Examiner asserting, in essence, that it would be obvious to attach a temperature sensor to measure mass flow rates, density, and volume of flow. This rejection is respectfully traversed. The merits of the rejection of claims 32 and 33 need not be discussed further since they are directly and / or indirectly dependent upon independent claim 1 which is believed to be allowable for the reasons above discussed with respect to claims 1, 50 and 51.

#### **Rejection of Dependent Claims 7 and 8**

Dependent claims 7 and 8 are directed with varying degrees of specificity to the step of straightening the flow tube means of independent claim 1. Claim 7 and 8 were rejected under 35 U.S.C. §103(a) over Sipin/Cucci in view of the Drahm publication 2001/0035055A1. The Examiner asserted that Drahm discloses the bending of flow tubes to form a desired geometry. This rejection is respectfully

traversed. The merits of the rejection of claims 7 and 8 need not be discussed further since they are directly or indirectly dependent upon independent claim 1 which is believed to be allowable for the reasons above discussed with respect to claims 150 and 51.

**Rejection of Dependent Claims 9-10, 12-15, 19, 23, and 24**

These claims were rejected under 35 U.S.C. §103(a) in view of Sipin/Cucci and further in view of Hopkinson U.S. 5261284.

Claims 9-10 and 12-15 are directed with varying degrees of specificity to affixing a driver means to the flow tube and affixing pickoff means to the flow tube using adhesive or cyanacrylate adhesive. Claim 19 is directed to the use of cyanacrylate adhesive to adhere a fixed element of the process connection into a hole recited in claim 17. Claim 23 is directed to the step of adhering the process connection to the base. Dependent claim 24 depends upon dependent claim 23 and adds the step of using cyanacrylate adhesive.

In rejecting these claims the Examiner stated that Hopkinson teaches the use of adhesives and that therefore would be obvious to form a flow meter has disclosed by Sipin/Cucci that uses adhesives as taught by Hopkinson. This rejection is respectfully traversed since the Examiner's statement contains neither evidence supporting his assertion nor any evidence of a motivation to combine Hopkinson with the Sipin/Cucci combination. The Examiner further asserted that the use of cyanacrylate adhesive would be an obvious design choice. The Examiner's statement is a mere assertion unsupported by evidence and, in particular, evidence of a motivation to combine Hopkinson with the Sipin/Cucci combination. The Examiner is respectfully requested to supply evidence of the use of cyanacrylate adhesive to adhere the elements of a Coriolis flow meter to one another.

The merits of the rejection of these claims need not be discussed further since they are directly or indirectly dependent upon independent claim 1 which is believed to be allowable for the reasons above discussed with respect to claims 1, 50 and 51.

The applicants decline to rewrite claims 3-6 and 25 as suggested by the Examiner.

In conclusion it is respectfully submitted that all claims in the application are allowable for reasons above discussed. The first such reason is that the cited art



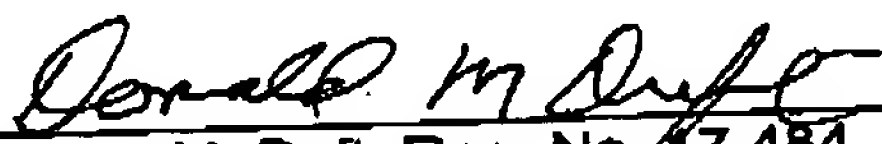
does not teach or disclose the elements recited by independent claim 1. This deficiency should make independent claim 1 allowable and therefore make all of dependent claims allowable. All claims should also be allowable since the Examiner's 35 U.S.C. §103(a) obviousness rejection is legally insufficient as lacking evidence supporting a conclusion of obviousness. All claims should further be allowable since no evidence has been presented supporting a motivation to combine the various references cited by the examiner to achieve his proposed structure.

It is submitted that all claims is remaining in the application are in condition for allowance and such action is respectfully requested.

Respectfully submitted,

Date:

25 Oct 04

  
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